

IMPLEMENTATION OF A DV VIDEO DECODER WITH A VLIW PROCESSOR AND A VARIABLE LENGTH DECODING UNIT

ABSTRACT OF THE INVENTION

- 5 A decoder for decoding a plurality of digital video data is described. In an embodiment, the decoder comprises a DV video decoder for decoding digital video data which is formatted according to the DV standard. The DV video decoder has a Very-Long Instruction Word (VLIW) processor and a variable length decoding unit. The VLIW processor includes a preparer unit for recovering a decoding order of the
- 10 digital video data so that the variable length decoding unit can process the digital video data. The variable length decoding unit decodes a variable length coding format of the digital video data which has been preparsed by the VLIW processor. Furthermore, the VLIW processor includes a decompression unit for decompressing the digital video data which has been decoded by the variable length decoding unit.
- 15 In an embodiment, the VLIW processor and the variable length decoding unit are formed on the same semiconductor device.